



Atty. Docket No. 103186

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

Chang et al.

Art Unit

1642

Serial No.:

10/712,359

Examiner:

Minh Tam B. Davis

Filed:

November 13, 2003

Conf. No.

1306

For:

DOMINANT NEGATIVE VARIANTS OF METHIONINE

AMINOPEPTIDASE 2 (MetAP2) AND CLINICAL USES THEREOF

Mail Stop - Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In accordance with 37 C.F.R. 1.97 and 1.98 and MPEP 609, and in compliance with the duty of disclosure set forth in 37 C.F.R. 1.56, Applicants submit the attached PTO/SB/08A form and copies of one (1) foreign patent document and twenty-six (26) non patent literature documents, for consideration by the Patent and Trademark Office in the above-entitled application and to be made of record therein.

In addition, this First Supplemental Information Disclosure Statement is being submitted pursuant to 37 C.F.R. § 1.97 (b) in that Applicants believe it is being filed prior to the mailing date of the first Office Action on the merits. Accordingly, neither a statement nor fee under 37 C.F.R. § 1.97 (c) or (d) is required. However, if an Office action was issued prior to the date of

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mailing of this First Supplemental Information Disclosure Statement, the Commissioner is hereby authorized to charge any required fees regarding this First Supplemental Information Disclosure Statement to Deposit Account No. 50-1662.

Respectfully submitted,

POLSINELLI SHALTON WELTE SUELTHAUS PC

Date: May 12, 2006

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tute for form 1449/PTO FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICATION

Sheet

(Use as many sheets as necessary)

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Com	plete if Known
Application Number	10/712,359
Filing Date	11/13/2003
First Named Inventor	Chang et al.
Art Unit	1642
Examiner Name	Minh Tam B. Davis
Attorney Docket Number	103186

			U.S PATENT DOC	UMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appeal
	BK	4,104,371	08/01/1978	Greven et al.	
	BL	4,119,620	10/10/1978	Nagatsu et al.	
	BM	5,686,416	11/11/1997	Kozarich et al.	
	BN	5,788,989	08/04/1998	Jansen et al.	
	ВО	5,985,273	11/16/1999	Reed et al.	
	BP	6,136,604	10/24/2000	Monia et al.	
	BQ	6,184,020	02/06/2001	Blinkovsky et al.	

		FOREIGN F	PATENT DOC	UMENTS		
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ^{5(# known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, columns, lines, Where Relevant Passages Or Relevant Figures Appear	Τ°
	BR	WO 99/18856 A1	04/22/1999	Cytovia, Inc.		

Examiner	Date	
Signature	Considered	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the authority (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	BS	ARFIN et al., "Eukaryotic methionyl aminopeptidases: two classes of colbalt-dependent enzyme." Proc Natl Acad Sci USA., 1995, Vol. 92, No. 17, pp. 7714-8	
	ВТ	AOYAGI et al., "Release of a plasma membrane-bound triaminopeptidase activity from mammalian cells by thermolysin." Biochem Biophys Res Commun., 1978, Vol. 80, No. 2, pp. 435-42.	
7 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	BU	BEN-BASSAT et al., "Processing of the initiation methionine from proteins: properties of the Escherichia coli methionine aminopeptidase and its gene structure." J Bacteriol., 1987, Vol. 169, No. 2, pp. 751-7.	
	BV	CARTER et al., "Aspartate-specific peptidases in Salmonella typhimurium: mutants deficient in peptidase E." J Bacteriol., 1984, Vol. 159, No. 2, pp. 453-9.	
	BW	CHANG, "Purification and characterization of a methionine aminopeptidase from Saccharomyces cerevisiae." J Biol Chem., 1990, Vol. 265, No. 32, pp. 19892-7.	
	ВХ	COHEN et al., "Amino acid analysis utilizing phenylisothiocyanate derivatives." Anal Biochem., 1988, Vol. 174, No. 1, pp. 1-16.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformation with MPEP 609. Draw line through citation if not in conformance and no considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at <u>www.uspto.gov</u> or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must proceed the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

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	for form 144 SUPPLE		\ I	Application Number	10/712,359
	IATION [Filing Date	11/13/2003
	MENT BY			First Named Inventor	Chang et al.
			ecessary)	Art Unit	1642
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Sheet	3	Of	3	Attorney Docket Number	103186

BY	DOI et al., "Modified colorimetric ninhydrin methods for peptidase assay." Anal Biochem., 1981, Vol. 118, No. 1, pp. 173-84.	
 BZ	DOUGHTY et al., "Chloride-insensitive, glycine-phenylalanine-naphthylamide hydrolysis at	
	neutral pH in human skin fibroblasts." Biochem Cell Biol., 1986, Vol. 64, No. 8, pp. 772-81.	
CA	HARADA et al., "Depth of side-chain pocket in the S2 subsite of dipeptidyl peptidase IV."	
 	Biochim Biophys Acta., 1985, Vol. 830, No. 3, pp. 341-4.	
СВ	IKEHARA et al., "Dipeptidyl-peptidase IV from rat liver." Methods Enzymol., 1994, Vol. 244, pp. 215-27.	
CC	JADOT et al., "Intralysosomal hydrolysis of glycyl-L-phenylalanine 2-naphthylamide."	
CD	Biochem J., 1984, Vol. 219, No. 3, pp. 965-70. JAIN, "Barriers to drug delivery in solid tumors." Sci Am., 1994, Vol. 271, No. 1, 58-65	
CE	LARRABEE et al., "High-pressure liquid chromatographic method for the assay of methionine	
	aminopeptidase activity: application to the study of enzymatic inactivation." Anal Biochem., 1999, Vol. 269, No. 1, pp. 194-8.	
CF	LIN, "Purification and characterization of an enzyme hydrolyzing L-methionine-4-nitroanilide from germinated sweet potato roots." Bot Bull Acad Sin., Vol. 35, pp. 25-32, 1994.	
CG	LIU et al., "Structure of human methionine aminopeptidase-2 complexed with fumagillin." Science., 1998, Vol. 282, No. 5392, pp. 1324-7.	
СН	LOWTHER et al., "The anti-angiogenic agent fumagillin covalently modifies a conserved active-site histidine in the Escherichia coli methionine aminopeptidase." Proc Natl Acad Sci U S A., 1998, Vol. 95, No. 21, pp. 12153-7.	
CI	MOERSCHELL et al., "The specificities of yeast methionine aminopeptidase and acetylation of amino-terminal methionine in vivo. Processing of altered iso-1-cytochromes c created by oligonucleotide transformation." J Biol Chem., 1990, Vol. 265, No. 32, pp. 19638-43.	
CJ	MOORE et al., "Chromatography of amino acids on sulfonated polystyrene resins." Analyt. Chem., 1958, Vol. 30, pp. 1185-1190.	
СК	PROOST et al., "Truncation of macrophage-derived chemokine by CD26/ dipeptidyl-peptidase IV beyond its predicted cleavage site affects chemotactic activity and CC chemokine receptor 4 interaction." J Biol Chem., 1999, Vol. 274, No. 7, pp. 3988-93.	
 CL	ROTH, "Fluorescence reaction for amino acids." Anal Chem., 1971, Vol. 43, No. 7, pp. 880-2.	
СМ	SMACCHI et al., "Purification and characterization of an extracellular proline iminopeptidase from Arthrobacter nicotianae 9458." FEMS Microbiol Lett., 1999, Vol. 178, No. 1, pp. 191-7.	
CN	STEIN et al., "Amino acid analysis with fluorescamine at the picomole level." Arch Biochem Biophys., 1973, Vol. 155, No. 1, pp. 202-12.	
СО	TSUNASAWA et al., "Amino-terminal processing of mutant forms of yeast iso-1-cytochrome c. The specificities of methionine aminopeptidase and acetyltransferase." J Biol Chem., 1985, Vol. 260, No. 9, pp. 5382-91.	
СР	WALKER et al., "Yeast (Saccharomyces cerevisiae) methionine aminopeptidase I: rapid purification and improved activity assay." Biotechnol Appl Biochem., 1999, Vol. 29, Pt 2, pp. 157-63.	
ca	WEI et al., "Continuous spectrophotometric assay of peptide deformylase." Anal Biochem.,	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformation with MPEP 609. Draw line through citation if not in

conformance and no considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional).

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Sheet	3	Of	3	Attorney Docket Number	103186

	1997, Vol. 250, No. 1, pp. 29-34	
CR	ZHOU et al., "Two Continuous Spectrophotometric Assays For Methionine Aminopeptidase." Analytical Biochemistry, 2000, Vol. 280, pp. 159-65.	
cs	ZUO et al., "A protease assay via precolumn derivatization and high-performance liquid chromatography." Anal Biochem., 1994, Vol. 222, (2), pp. 514-6.	

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Serial No.	Filing Date	Examiner	Gloup Art Offic

I hereby certify that:

- Letter to the Commissioner for Patents (2 pages);
- First Information Disclosure Statement by Application form PTO/SB08A (3 pages);
- ☑ One (1) Foreign Patent Document;
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